

water matters

A newsletter from
the Black Mountain
Irrigation District

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Trustees give go-ahead to innovative water treatment project

Trustees have approved a \$2.5-million treatment project that will significantly improve drinking water quality, especially during spring run-off. Construction of the facility will begin this month and is expected to be up and running by the spring of 2000.

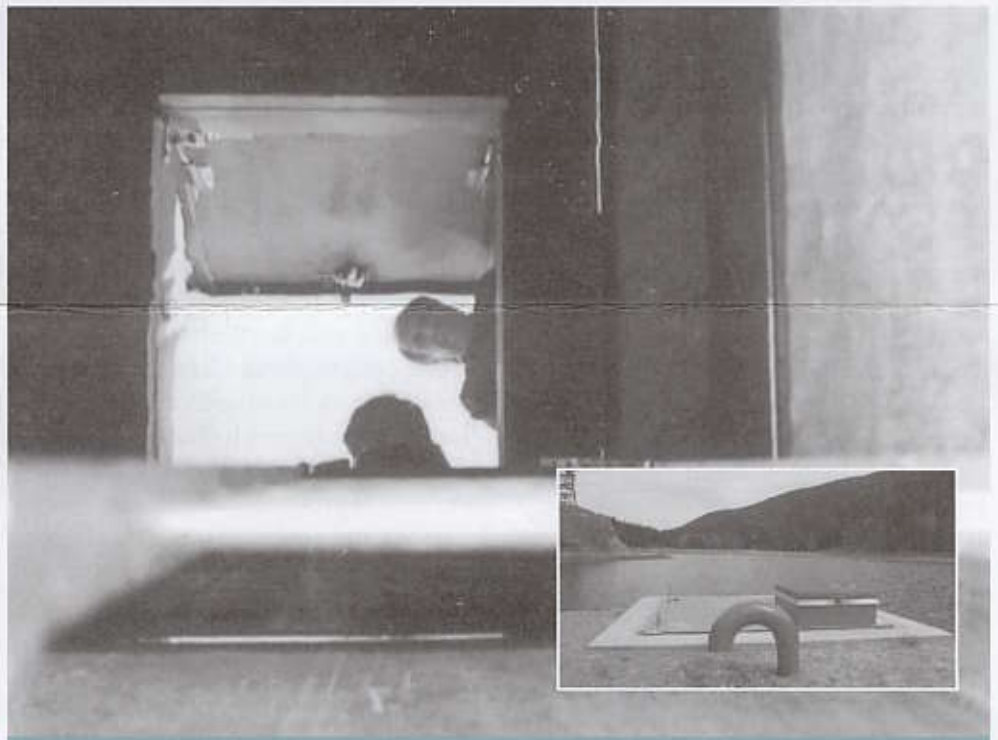
"The objective is to treat Mission Creek water during spring run-off and other times when water quality is lower than recommended in the *Canadian Drinking Water Quality Guidelines*," says engineer Bob Hrasko of Kelowna's Reid Crowther, the firm that designed the facility and will oversee construction.

You might recall that BMID undertook a pilot project in 1998 to test the effectiveness of a water quality treatment process using a chemical (alum being the most effective) to settle out silt particles and remove colour. Results of the study showed the coagulation/sedimentation process would effectively reduce turbidity, particle count (size and number of particles in the water), colour, and total organic carbon levels. It is expected the process will also reduce levels of waterborne cysts such as *Giardia* and *Cryptosporidium*, although not to the extent provided by full-scale filtration, which is not affordable for BMID customers. Pilot study results were presented to BMID customers at an open house December 8th. Response was positive, which prompted trustees to approve the project in January.

The chosen location is above Stevens Reservoir near BMID's intake on Mission Creek. The facility will include a new intake on Mission Creek; a rapid-mix

tank; two flocculators; two sedimentation clarifiers; and all necessary pipeworks, instrumentation, and chemical dosing systems.

Because no financial help is available from government sources, BMID customers can expect a monthly increase in users fees of about \$3 when the plant is operational. ■



One of Malcolm Tomlinson's duties as BMID operations supervisor involves checking water levels in the Stevens Reservoir outlet tower (see inset). Water is drained from the top two meters of eight in the reservoir through the outlet into a 36-inch main leading to the Hadden Reservoir, where further settling occurs.

TRUSTEES' ANNUAL REPORT

Meetings: In 1998, BMID's Board of Trustees held 37 regular and special meetings to conduct the district's business activities.

Election: Trustees Heinz Koetz and Lawrence Petch were re-elected by acclamation to three-year terms.

Water Treatment Facility:

Responding to poor water quality caused by excessive run-off in 1997, the district embarked on a pilot project to test the effectiveness and cost-efficiency of a treatment system involving coagulation and flocculation for clarification using a chemical (alum) to settle out silt particles and remove colour.

The pilot project proved successful and details were presented at an open house December 8th held at the district office. The response by the public has been positive and the trustees approved the next phase of the project — this being to proceed with pre-design to confirm actual construction costs. Construction will begin in 1999; the facility will be in operation by 2000.

Conduit Failure: As a result of the main conduit failure in December, the Board agreed that the need for a back-up emergency water supply is more important than ever. Refurbishing and upgrading of the Cornish Road well was approved, which includes a pump, electric-motor replacement, variable frequency drive, electrical wiring, etc. at a cost about \$75,000. Funds from the Equipment Replacement Reserve will be used for this project.

Trustees thank Rutland Waterworks for supplying emergency service while BMID's system was down during repairs.

Office Computer System: To be Year-2000 compliant, it was necessary to upgrade the office's entire financial and reporting systems. The new Vadim Computer Management system was installed and is now working well.

Boundary Extension: To properly align district boundaries and to assume responsibility for an area which had been serviced by the City of Kelowna with bulk water supplied by BMID, the Ministry of Municipal Affairs was petitioned requesting an extension of boundaries to include more than 100 lots. The district can easily supply the additional properties.

Capital Works Plan: A ten-year Capital Works Plan was approved along with a revised Capital Charge Bylaw which established capital charge rates which more accurately reflect the costs for capital works required to service new development in the district. Because of the anticipated water treatment project, construction of the Black Mountain Reservoir might be deferred until sufficient funds are available to minimize debt and, therefore, avoid financial risk.

Timber Harvesting Management: Management of the timber resource on BMID property continued in 1998. Extensive blow down in the Ideal Lake (Belgo Dam) area, prompted salvage logging; 51 loads were removed. Even with depressed timber prices, the district's net gain was nearly \$50,000. It is expected that additional logging will take place in 1999.

Gallagher Canyon Lands - Reserve Status: Negotiations continued with the Westbank First Nation (WFN) in an effort to resolve conflicts with Westbank's application to have lands adjacent to Mission Creek declared Reserve Lands. BMID's main concern is protection of existing water licenses and easements, and that water quality is not compromised by development along the creek.

A formal agreement among all parties has been drawn up which records and outlines respective rights and obligations for each agency. It is expected a final agreement will be reached sometime this year.

Subdivision and Development:

The growth rate in the BMID service area continued to be moderate. Ninety-one units were added to the system, which brought the total number of serviced units to 6519 by year's end — an increase of about 1.5 percent from '97.

Interconnection - BMID/Glenmore Ellison:

The City's recently-adopted subdivision, development, and servicing bylaw requires a minimum fire flow of 225 litres per second for industrial lands. This resulted in fire-flow deficiencies in the Sexsmith, Campion, and Adams Road areas. To meet the new fire-flow requirement, the two districts agreed to interconnect their systems in the Sexsmith Road area. A two-way pressure-regulating system was installed which allows the valve to open either way if a pressure loss occurs in either system. This interconnection has rectified the fire-flow deficiency in the area.

Personnel Changes:

Administrative assistant Garry Yaneszewski resigned from his position in December after five years with district. We wish Garry well in his new endeavors. His replacement is James Moller, who we feel will be a valuable addition to the BMID team.

Acknowledgment: On behalf of all BMID water users, we thank all district staff for a job well done, and for their dedication to the responsibilities assigned them.

Respectfully submitted,

Gord Ivans

Jim Kitaura, Chair

Alf Kempf

Heinz Koetz

Lawrence Petch

Beware of misleading information about drinking water quality

Local water utilities have received complaints from customers about companies using false and misleading information to promote in-home water treatment devices. It has been reported that sales representatives have made statements to the effect that there are poisons, toxins, and other hazardous contaminants in the water supply. Water supplied by BMID generally meets health and aesthetic objectives outlined in the *Canadian Drinking Water Quality Guidelines* and the provincial *Safe Drinking Water Regulation*. BMID constantly monitors its water supply, and will gladly provide a copy of the full-parameter test performed by a professional laboratory.

Natural events such as spring run-off and heavy rainfalls can, however, compromise the district's ability to consistently provide good water for drinking, as is the case this spring with above-average snow packs and severe run-off.

BMID has no objection to customers installing in-home treatment devices to improve water quality. What does concern staff, however, are the methods used by some sales people and reports from customers who have been sold expensive systems such as water softening equipment. BMID's Mission Creek source is very soft and, therefore, does not require softening.

BUYER BEWARE! We recommend you explore options (and products) very carefully before deciding what best suits your needs. We can't recommend particular systems, but whatever you choose, follow maintenance directions carefully. Poorly-maintained units can actually pose serious health risks.

REMINDER! Dissolved minerals occur naturally in drinking water, and are not necessarily harmful. The probe indicator used by some firms to precipitate total dissolved

solids sometimes creates a layer of rusty-brown sludge. This is not indicative of poor water quality.

If you have concerns about inappropriate claims concerning water quality, please contact us immediately at 765-5169. ■

Meet the Staff



Technician Bill Nixon is responsible for BMID's chlorination and instrumentation systems. He also sets, repairs, and maintains the district's 40 or so pressure reducing valves. During his eight years with BMID, Bill has overseen constant improvements to the system's recording and instrumentation equipment. He particularly appreciates a recently-installed telemetry system that monitors all collection, treatment, and distribution activities from the district's office on Gray Road.

Wally and Wanda say...

...be responsible when playing in our watersheds

- Recognize that you're in a community watershed and that water is a priority resource.
- Stay on designated roads to avoid damaging soft ground such as meadow lands and creeks.
- Pack out what you pack in.
- Go to the bathroom well away from streams and lakes.
- Make sure your campfire is "out cold."
- Obey all signs and keep vehicles off dams and other structures.
- Observe, record, and report questionable activities to BMID at 765-5169.

* Remember that damage to the watershed equals damage to your drinking water.



Seven simple steps to reducing irrigation

1 Use common sense — automatically

Properly installed and well maintained automatic sprinkler systems conserve water admirably. Remember to schedule properly, check regularly for leaks and breakage, clean filters routinely, and adjust sprinkler head pressure to avoid overlap and the unnecessary watering of roadways and sidewalks.

2 Water only when needed

Most plants and grasses need only about two inches of water per month in spring, and four inches per month in July and August. Let your lawn dry out between waterings, as excessive moisture encourages thatch growth. To test when your lawn needs watering, just step on it. If the grass springs back, it doesn't need water. If it stays flat, fetch the sprinklers.



3 Avoid evaporation

Sprinkle during the coolest parts of the day — early morning and late evening — and avoid watering on windy days. When you water in the hot afternoon sun, you lose up to 50 percent of the water to evaporation. Help your soil retain moisture by adding organic material and by surrounding trees, shrubs, and plants with mulch. Avoid using rocks, as they absorb heat and accelerate evaporation.

4 Choose fertilizers wisely

Your lawn should be fertilized, but not with nitrogen-rich fertilizers that stimulate temporary growth and require excessive irrigation. Instead, choose a mix like 16-10-8. Better yet, aerate your lawn and top dress with OGO-GROW — the end product of the City of Kelowna's innovative biosolids recycling program.

5 Let your grass stand tall

Let your grass grow to a height of 2½ inches, as taller grass shades new growth and reduces evaporation. Leave grass clippings on the lawn; they will break down over time and, therefore, build up your soil.



6 Get zoned

Different areas of your landscape require different amounts of water. Adjust your sprinklers to deliver less water in shady areas. Water gardens by hand.

7 Xeriscape

By planting drought-resistant (often indigenous) trees, shrubs and flowers, you can save time and money and reduce domestic irrigation by as much as 80 percent. Xeriscape plants — which are available at local nurseries — are watered for the first year until roots grow into the groundwater table. After that they're watered very little, or left to fend for themselves. ■



BMD administrator Phil Ruskowsky can attest to the fact that snowpacks this year were well above average, which caused water quality deviations during spring run-off. Next year, turbidity caused by melting snowpacks will be reduced significantly by the district's new coagulation/sedimentation treatment system being built near the Mission Creek intake.



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